

Kobe University Frontier Technology Forum 2007

-Nanotechnology and Biotechnology for Next-Generation Photonics -

Organized by: Department of Frontier Research and Technology,
Headquarters for Innovative Cooperation and Development, Kobe University



November 1 (Thursday) – 2 (Friday), 2007
KOBE University Centennial Hall and
Takikawa Memorial Hall, Kobe University, Kobe, Japan

Program

November 1 (Thursday) (KOBE University Centennial Hall)

- 10:00 – 10:10 *Opening remarks*
Osamu Wada (Kobe University, Japan)
Nitride Materials for Photonic Applications
- 10:10 – 11:10 *Plenary talk*
GaN-based nonpolar / semipolar blue laser diodes and LEDs
Shuji Nakamura (University of California, Santa Barbara, U. S. A.)
- 11:10 – 11:55 *Nitride photocatalyst to produce hydrogen clean energy from water*
Kazuhiro Ohkawa (Tokyo University of Science, Japan)
- 11:55 – 13:30 (Lunch)
- Ultrafast Photonics*
- 13:30 – 14:30 *Plenary talk*
Femtosecond optics: More than just really fast
Erich P. Ippen (Massachusetts Institute of Technology, U. S. A.)
- 14:30 – 15:15 *Carrier physics in quantum dot optoelectronics*
Ted B. Norris (University of Michigan, U. S. A.)
- 15:15 – 15:30 (Photo & coffee break)
- 15:30 – 17:00 Poster session
Research and Education in Science and Technology
- 17:00 – 17:45 *Career development in science and technology - Will Einstein be smiling again? -*
Roy Lang (Tokyo University of Agriculture and Technology, Japan)
- 18:00 – 20:00 (Banquet , Takikawa Memorial Hall)



Venture Business Laboratory

November 2(Friday) (Takikawa Memorial Hall)

- Nanobiology and Biophotonics*
- 9:00 – 9:45 *Live imaging of cellular dynamics during embryogenesis*
Asako Sugimoto (RIKEN, Japan)
- 9:45 – 10:30 *Options and tools for life-cell imaging*
Alexander Schulz (University of Copenhagen, Denmark)
- 10:30 – 10:50 (Coffee break)
- 10:50 – 11:35 *Live cell imaging of secretory membranes*
Federica Brandizzi (Michigan State University, U. S. A.)
- 11:35 – 12:20 *Single molecule nano-biology*
Toshio Yanagida (Osaka University, Japan)
- 12:20 – 13:40 (Lunch)
- Nano- and Bio-Materials Engineering*
- 13:40 – 14:25 *The evolution of spectral interpretation - From spin systems to molecular structure and beyond*
Graeme R. Hanson (The University of Queensland, Australia)
- 14:25 – 15:10 *Femtosecond laser applied for nanotechnology and biotechnology*
Kazuyuki Hirao (Kyoto University, Japan)
- 15:10 – 15:30 (Photo & coffee break)
- Nano Science and Technology for Innovation*
- 15:30 – 16:30 *Plenary talk*
Driving forces in state-of-the-art VCSEL research: Nanotechnology and industrial applications
Karl Joachim Ebeling (The University of Ulm, Germany)
- 16:30 – 17:15 *Future of soft nano material science and technology*
Koji Kaya (RIKEN, Japan)
- 17:15 – 17:25 *Closing remarks*
Shigehito Deki (Kobe University, Japan)

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